



**Social Mobility &  
Child Poverty  
Commission**

# **Mapping the occupational destinations of new graduates**

## **Research report**

### **October 2013\***

**Lindsey Macmillan and Anna Vignoles**

**Centre for Analysis of Youth Transitions (CAYT)**

**Social Mobility and Child Poverty Commission  
Sanctuary Buildings  
20 Great Smith Street  
London  
SW1P 3BT  
[contact@smcpccommission.gov.uk](mailto:contact@smcpccommission.gov.uk)**

**\* This report was revised in November 2013 to correct a factual inaccuracy (see Erratum on page 10).**

# Contents

<b>Centre for Analysis of Youth Transitions (CAYT)</b>	<b>4</b>
<b>Social Mobility and Child Poverty Commission (SMCP)</b>	<b>4</b>
<b>Table of figures</b>	<b>5</b>
<b>Executive summary</b>	<b>8</b>
<b>Findings</b>	<b>9</b>
<b>Policy implications</b>	<b>10</b>
<b>Introduction</b>	<b>11</b>
<b>Research questions</b>	<b>11</b>
<b>Data</b>	<b>12</b>
<b>Model</b>	<b>13</b>
<b>Results</b>	<b>14</b>
<b>Descriptive statistics</b>	<b>14</b>
<b>Regression results</b>	<b>18</b>
<b>Conclusions</b>	<b>27</b>
<b>References</b>	<b>33</b>
<b>Appendix A</b>	<b>34</b>

Prepared by:

Dr Lindsey Macmillan, Institute of Education  
Professor Anna Vignoles, University of Cambridge

## **Centre for Analysis of Youth Transitions (CAYT)**

The Centre for Analysis of Youth Transitions (CAYT) is an independent research centre with funding from the Department for Education. It is a partnership between leading researchers from the Institute of Education, the Institute for Fiscal Studies, and the National Centre for Social Research.

Prepared for:

## **Social Mobility and Child Poverty Commission (SMCP)**

The Social Mobility and Child Poverty Commission is an advisory non-departmental public body (NDPB) of the Department for Education, the Department for Work & Pensions and the Cabinet Office.

The Commission was established with a remit to:

- publish an annual report setting out progress made in improving social mobility and reducing child poverty in Great Britain;
- provide published advice to ministers at their request on social mobility and child poverty; and
- act as an advocate for social mobility beyond government by challenging employers, the professions and universities amongst others to play their part in improving life chances.

This research was commissioned to explore the family background of graduates in high status occupations and look at whether the transitions made by new graduates as they leave university differ by social background. A better understanding of these early transitions may help understand when the socio-economic inequalities in top professions begin and whether this is due to differences in the career trajectories of graduates from different social backgrounds.

## Table of figures

<b>Figure 1 Graduates entering high status occupations and post graduate study 6 months and 3 years after graduation</b>	14
<b>Figure 2 Graduates entering selected high status professions 3 years after graduation</b>	15
<b>Figure 3 Social origins of graduates entering specific occupational groups 3 years after graduation</b>	16
<b>Figure 4 Graduates undertaking post-graduate study 6 months after graduation by initial degree subject area</b>	17
<b>Figure 5 Graduates undertaking post-graduate study 6 months after graduation by professional occupation</b>	18
<b>Figure 6 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation by socio-economic background characteristics</b>	20
<b>Figure 7 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation by socio-economic background characteristics</b>	22
<b>Figure 8 Likelihood of graduates entering full time post graduate study 6 months after graduation by socio-economic background characteristics</b>	24
<b>Figure 9 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation by socio-economic background characteristics without and with controlling for postgraduate study at 6 months</b>	26
<b>Figure 10 Likelihood of graduates entering selected high status professions 6 months after graduation by socio-economic background characteristics (MALES)</b>	29
<b>Figure 11 Likelihood of graduates entering selected high status professions 6 months after graduation by socio-economic background characteristics (FEMALES)</b>	31
<b>Figure 12 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by parental occupation</b>	34
<b>Figure 13 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by HE participation</b>	34
<b>Figure 14 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by type of school attended</b>	35
<b>Figure 15 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, all variables together (SCOTLAND only)</b>	35
<b>Figure 16 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, all variables together</b>	36

<b>Figure 17 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by parental occupation</b>	<b>37</b>
<b>Figure 18 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by HE participation</b>	<b>37</b>
<b>Figure 19 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by type of school attended</b>	<b>38</b>
<b>Figure 20 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, all variables together (SCOTLAND only)</b>	<b>38</b>
<b>Figure 21 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, all variables together</b>	<b>39</b>
<b>Figure 22 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by parental occupation</b>	<b>40</b>
<b>Figure 23 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by HE participation</b>	<b>40</b>
<b>Figure 24 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by type of school attended</b>	<b>41</b>
<b>Figure 25 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, all variables together (SCOTLAND only)</b>	<b>41</b>
<b>Figure 26 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, all variables together</b>	<b>42</b>
<b>Figure 27 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by parental occupation</b>	<b>43</b>
<b>Figure 28 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by HE participation</b>	<b>43</b>
<b>Figure 29 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by type of school attended</b>	<b>44</b>
<b>Figure 30 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, all variables together (Scotland only)</b>	<b>44</b>
<b>Figure 31 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, all variables together</b>	<b>45</b>
<b>Figure 32 Likelihood of graduates entering full time post-graduate study at 6 months, by parental occupation</b>	<b>46</b>

<b>Figure 33 Likelihood of graduates entering full time post-graduate study at 6 months, by HE participation</b>	<b>46</b>
<b>Figure 34 Likelihood of graduates entering full time post-graduate study at 6 months, by type of school attended</b>	<b>47</b>
<b>Figure 35 Likelihood of graduates entering full time post-graduate study at 6 months, all variables together (SCOTLAND only)</b>	<b>47</b>
<b>Figure 36 Likelihood of graduates entering full time post-graduate study at 6 months, all variables together</b>	<b>48</b>
<b>Figure 37 Likelihood of graduates entering highest status occupations (SOC Group 1) with and without post-grad dummy for sample where observe post-graduate status, by socio-economic background characteristics</b>	<b>49</b>
<b>Figure 38 Likelihood of graduates entering high status occupations (SOC Group 2) with and without post-grad dummy for sample where observe post-graduate status, by socio-economic background characteristics</b>	<b>50</b>
<b>Figure 39 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation including marginal effects for control variables</b>	<b>51</b>

## Executive summary

Graduates continue to earn more than non-graduates on average and for many a degree is the route to a high paid, and often enjoyable job. Successful graduates will often secure these higher earnings by entering one of the more prestigious and higher paid professions.

Access to these higher status and higher paid professions is unequal, with those from less advantaged backgrounds being less likely to secure such roles, as discussed by Alan Milburn in his 2009 report on fair access to the professions and his subsequent update. Whilst individuals from more advantaged socio-economic backgrounds continue to be more likely to secure a higher paid professional role, this will act as a break on social mobility, a point recognised in the recent Government White Paper *Opening Doors, Breaking Barriers: A Strategy for Social Mobility*.

This report examines the transitions that new graduates make as they leave university and enter the labour market. It investigates the extent to which on exit from university, students from different socio-economic backgrounds are more or less likely to enter a status occupation. For the purpose of this report, a high status occupation is defined as those in Standard Occupation Classification (SOC 2000) Group 1 and 2, however the report focuses on access to the very high status occupations (SOC Group 1) which include higher managerial occupations. This is however, a relatively crude measure, encompassing some roles that we may not define as high status. For some analyses we focus in on specific high status professions, such as the legal profession. A key problem though is to clarify more precisely what we mean by high status and in these data there are problems with small sample sizes when we consider individual occupations. Future work could usefully try to resolve these limitations.

The report uses data on first degree graduates leaving higher education in 2006/7 who have been surveyed at 6 months and 3 years after graduation. The data are from the Higher Education Statistics Agency *Longitudinal Destination of Leavers from Higher Education* and includes students graduating from Scottish, English and Welsh institutions.

The measures of a student's socio-economic background used in the report are:

- The highest earning parent's most recent occupation on the student's entry to university as measured by the National Statistics Socio-economic Classification (NS-SEC).
- A proxy measure of socio-economic disadvantage, namely whether or not the student lived in an area with low HE participation when they applied to go to university.
- Whether or not they attended a state school just prior to going to university.



## Findings

Focusing just on the 6 months immediately after graduation, a graduate's socio-economic status is not associated with their chances of entering the highest status occupations, except via the positive effect that it has on a person's academic achievement, degree subject, degree class and university choice. In other words, there is no evidence that socio-economic status is playing an independent role in helping graduates secure access to the highest status occupations straight after graduation. That said, those who attended private school *do* have a better chance of entering these occupations, even compared to individuals from state schools with similar characteristics and similar levels of education achievement.

3 years after graduation, the situation is different. More socio-economically advantaged graduates (those whose parents have higher status occupations themselves or those who lived in areas with higher levels of HE participation) are more likely to be in the highest status occupations. This is particularly so for males. It also remains the case that those who attended state schools are less likely to access the highest status occupations. Comparing two similar students in terms of where they went to university, their prior attainment, degree subject choice and degree attainment, a student who attended a private school has a 3 percentage points higher chance of entering into the highest status occupations than a student who went to a state school. To provide some sort of comparison, one might note that males are around 2.3 percentage points more likely to enter the highest status occupations 3 years after graduation as compared to females. Black graduates are 2.7 percentage points less likely to enter the highest status occupations than their white peers and Scottish domiciled students are 4 percentage points less likely.

It is important to note that we do observe a large socio-economic gap in the likelihood of entering the highest status occupations, even 6 months after graduation. However, this gap is eliminated at 6 months and reduced at 3 years after graduation when we control for other differences across graduates; specifically, prior achievement, degree subject, degree class and institution. Hence one of the main ways that socio-economic advantage translates into higher occupational status is via its effect on educational achievement.

We should also note that the independent impact from a pupil's socio-economic background on their chance of entering the highest status occupations is observed only for English and Welsh students. The independent effect from socio-economic background is not observed when we focus our analysis on Scottish domiciled students only.

We also confirmed that more advantaged graduates are more likely to undertake postgraduate study. At 2-3 years after graduation it is perhaps too soon to see the effect of taking post graduate

study but we would anticipate that in the longer term the socio-economic gap in access to postgraduate study would again translate into a larger socio-economic gap in access to the most prestigious occupations.

Attending a private school appears to increase the likelihood of a graduate securing a role in the highest status occupations though with this type of analysis this does not necessarily mean a causal relationship. This research does however present a challenge to those top professions who argue that they only hire the most qualified students. Our evidence shows that even if we compare students from the same institution type, taking the same subjects and with the same degree class, socio-economic status and private schooling in particular still affects a student's chances of entering the highest status occupations.

## Policy implications

In the short term a socio-economic gap in the job status of graduates is not observed. This may be because 6 months is too soon to observe graduates and many are not in their final occupational choice, and indeed many are undergoing postgraduate study. Given that socio-economic background does play a role in whether or not a student undertakes further study, this implies that we need to wait a few years after graduation before we can observe the extent of any socio-economic gap in occupational achievement.

The role of socio-economic background is stronger for males. This may reflect the fact that women are more likely to work in the public sector and in occupations where perhaps the entry and promotion criteria are more clearly defined.

Our results indicate a persistent advantage from having attended a private school. This raises questions about whether the advantage that private school graduates have is because they are better socially or academically prepared, have better networks or make different occupational choices. Whilst we do control for formal differences in academic achievement, we cannot model whether privately educated students are better prepared for job interviews and for the world of work directly. Clearly though this issue merits further investigation.

Lastly, we do not observe such strong socio-economic gaps for Scottish domiciled students, again this may indicate that the Scottish education system or labour market may work somewhat differently and this too merits further investigation.

Erratum: a previous version of this report referred to the National Statistics Socio-economic Classification (NS-SEC) as the classification used to describe graduates' destination occupations. This was incorrect. It should have referred to the Standard Occupational Classification (SOC). Apologies for this error.

## Introduction

There is extensive research showing that the average return to a degree remains high.<sup>1</sup> Graduates continue to earn more than non-graduates on average and for many, a degree is the route to high paid, and often enjoyable job. Many successful graduates will secure these higher earnings by entering one of the more prestigious and higher paid professions. Yet we also know that access to these professions is unequal, with those from less advantaged backgrounds being less able to make the transition from the education system into these higher paying, prestigious and more stable jobs. This problem was clearly identified by Alan Milburn in his 2009 report on fair access to the professions.<sup>2</sup> His recent update confirms that there is much still to be done in terms of achieving fair access to professions.<sup>3</sup> Specifically, individuals from more advantaged socio-economic backgrounds continue to be more likely to secure a higher paid professional role, with many employers recruiting from a limited range of universities and degree subjects. This undoubtedly has implications for social mobility, a point recognised in the recent White Paper on Social Mobility.<sup>4</sup>

What is less clear is how the transitions that new graduates make as they leave university influence their ability to access the professions and whether better understanding of these early transitions can help us reduce the socio-economic gap in access to the top professions. Below we examine the early occupational transitions made by new and recent graduates. We investigate the extent to which on exit from university, students from different socio-economic backgrounds achieve different outcomes, specifically postgraduate study and access to high status occupations (defined as Group 1 and Group 2 SOC occupations) and specific high status professions identified in the Milburn report.

## Research questions

We investigate the occupational destinations of new graduates 6 months after leaving university, and again at 3 years after graduation.

We address the following research questions:

1. To what extent are new graduates from lower socio-economic backgrounds less likely to be in a high status occupation 6 months after graduation (once we control for other differences across graduates in their characteristics and educational achievement)?

---

<sup>1</sup> See Bratti and Manchini (2003); Bratti et al. (2005); Chevalier (2010,2011), Walker and Zhu (2005, 2011).

<sup>2</sup> Milburn, A. (2009) Unleashing Aspiration: The Final Report of the Panel on Fair Access to the Professions. London: Cabinet Office. <http://webarchive.nationalarchives.gov.uk/+http://www.cabinetoffice.gov.uk/media/227102/fair-access.pdf>

<sup>3</sup> Milburn, A. (2012) Fair Access to Professional Careers: A progress report by the Independent Reviewer on Social Mobility and Child Poverty. London: Cabinet Office. [http://www.cabinetoffice.gov.uk/sites/default/files/resources/IR\\_FairAccess\\_acc2.pdf](http://www.cabinetoffice.gov.uk/sites/default/files/resources/IR_FairAccess_acc2.pdf)

<sup>4</sup> Cabinet Office (2011) Opening Doors, Breaking Barriers: A Strategy for Social Mobility. London: Cabinet Office. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/61964/opening-doors-breaking-barriers.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/61964/opening-doors-breaking-barriers.pdf)

2. To what extent are new graduates from lower socio-economic backgrounds less likely to be in high status occupation 3 years after graduation? In other words, is the socio-economic gap in the high status occupational groups greater 3 years after graduation?
3. Do the characteristics of students, such as degree subject, institution of study or gender explain much of the socio-economic gap in the likelihood of entering a high status occupation?
4. How important is post-graduate study as a route by which higher socio-economic status students enter high status occupations?

## Data

We use data on first degree graduates leaving higher education in 2006/7. The data are from the Higher Education Statistics Agency *Longitudinal Destination of Leavers from Higher Education*.

The socio-economic background of each student is measured using 3 distinct variables.

- The highest earning parent's most recent occupation on the student's entry to university as measured by the National Statistics Socio-economic Classification (NS-SEC).
- A proxy measure of socio-economic disadvantage, namely whether or not the student lived in an area with low HE participation when they applied to go to university.
- Whether or not they attended a state school just prior to going to university.

The occupational destination of each student is measured in two ways.

- Firstly, we define high status occupations as those in National Standard Occupation Classification (SOC 2000) Groups 1 and 2 (see Figure 1 for descriptive statistics on these categories). Most of the analysis presented in the main body of the report focuses specifically on access to the very high status occupations, i.e. those in SOC Group 1.
- We then investigate specific high status professions using a similar list to those considered in the Milburn report based on their SOC2000 occupational code.

These measures do appear however, to encompass some roles that we may not define as high status. A key problem though is to clarify more precisely what we mean by high status and in these data there are problems with small sample sizes when we consider individual occupations. Future work could usefully try to resolve these limitations.

We also consider the role of post-graduate study as both an outcome and a potential mediator in accessing high status occupations. Post-graduate study is observed in the six month follow up survey. We define this as individuals who report 'further study only' as their main activity, who are studying towards a postgraduate diploma or a higher degree (both research and taught) and who

are registered on a course or a research programme. These individuals are therefore full-time registered post-graduate students.

We restrict our analysis to younger graduates, i.e. between the ages of 18 and 25. We do this because many mature graduates will have had a career prior to entering higher education and without good data on that previous career we cannot easily compare occupational trajectories for these mature students. We consider whether our main results are consistent across girls and boys and in England and Wales compared to Scotland.

## Model

We use regression analyses to determine the likelihood of students from different socio-economic backgrounds entering a high status occupation. This allows us to take account of the many factors that influence occupational destination. This is important because whilst it may appear that lower socio-economic status graduates are less likely to access high status occupations this could be due to other factors. In particular it may be because they entered HE with lower prior achievement (on average), attended different universities and chose different degree subjects. Our models control for these factors.

Since the outcome variables are binary (whether or not the student entered a high status occupation for example), we estimate the models using a probit specification. This class of models produce results that are easily interpreted and in the analysis tables we present “marginal effects”. These marginal effects can be interpreted as the percentage point difference in the likelihood of entering a high status occupation for students from different socio-economic backgrounds compared to a base group. We discuss the magnitude of the results further below in the results section.

The specific factors we control for in the regression models are: gender, ethnicity, age, region of work, UCAS tariff point scores, degree subject, degree class and institution type (Russell Group, Oxbridge, 1994 etc.). Controlling for these factors enables us to ask whether students from different socio-economic backgrounds who are otherwise similar across these characteristics, are more or less likely to enter a high status occupation.

We must note however, that our evidence is associational. We cannot prove that it is the student’s socio-economic status per se that prevents them from securing a high status occupation. It could be that other factors are the causal factors. For example, there may be unobserved differences in students’ aspirations or indeed their ability by socio-economic background that drive the relationships we see. Hence some caution is needed when interpreting the results. Nonetheless,

with these rich data, we can be reasonably confident that the associations we observe are meaningful from a policy perspective and can inform policy.

## Results

### Descriptive statistics

Figure 1 shows the number and proportion of graduates at 6 months and at 3 years after graduation who are employed in high status occupations (SOC Groups 1 and 2) and registered in full-time post-graduate study at 6 months. Figure 2 shows the number and proportion of graduates in specific high status professions at 3 years.

At 6 months after graduation, around 50% of the sample was in high status occupations, i.e. higher and lower professional, managerial and administrative roles. By 3 years after graduation, this had increased to around 65%. These are however, quite broad categories of jobs and will include some that may not be considered high status occupations, e.g. para legal roles.

Just under 15% of the sample was enrolled in full-time post-graduate education at the 6 months follow up study.

The proportions entering specific high status professions 3 years after graduation were smaller, though it is striking that more than one in ten had entered the field of education, whilst just 1.5% were in a scientists.

**Figure 1 Graduates entering high status occupations and post graduate study 6 months and 3 years after graduation**

Occupational destination	6 months after graduation		3 years after graduation	
	Number	%	Number	%
SOC Group 1 occupations (Managers and senior officials)	1,781	8.5	3,352	13.4
SOC Group 2 occupations (Professional occupations)	8,145	38.7	12,648	50.6
Full time postgraduate study	4,460	14.8		

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

Figure 2 Graduates entering selected high status professions 3 years after graduation

Professional occupation	Number	%
Life Science	939	3.8
Legal	586	2.4
Business	1,130	4.5
Media	1,108	4.4
Public	500	2.0
Scientists	382	1.5
Education	3,101	12.4
Built Environment	2,415	9.7

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

The social origins of those entering into high status occupations are shown in Figure 3. The table describes the proportion of individuals entering into the highest status occupational group (SOC Group 1) three years after graduation, compared to those entering into SOC Groups 2-9 occupations by their parents' occupation, whether they lived in a low participation area and whether they attended a state school.

Those who worked in the highest status occupational group 3 years after graduating were slightly more likely to come from a family with professional or lower managerial parents than those working in a lower status occupation group (50.1% compared to 47.8%). They were also slightly less likely to come from a low participation area (6.4% compared to 7.7%) and to have attended a state school (84.1% compared to 87.9%) than those working in a lower occupation grouping. Although there is a large proportion of the sample that are missing information on the parents' occupation (19%), the proportion missing is fairly similar across the group that achieved the highest status occupations and the group that did not. Missing dummies are included throughout the analysis for each of the three socio-economic status (SES) indicators.

Figure 3 Social origins of graduates entering specific occupational groups 3 years after graduation

	SOC Group 1 3 years after graduation		SOC Group 2-9 3 years after graduation	
	Number	%	Number	%
<b>Parental Occupation</b>				
Higher managerial, administrative and professional	714	21.3	4,790	22.2
Lower managerial, administrative and professional	964	28.8	5,531	25.6
Intermediate	409	12.2	2,616	12.1
Small employers and own account workers	207	6.2	1,326	6.1
Lower supervisory and technical	115	3.4	854	4.0
Semi-routine	233	7.0	1,618	7.5
Routine	92	2.7	800	3.7
Never worked and long-term unemployed	3	0.1	25	0.1
Parental occupation missing	615	18.3	4,069	18.8
<b>Area level of HE participation</b>				
Low participation	204	6.4	1,602	7.7
Low participation missing	159	4.7	863	4.0
<b>Type of school attended</b>				
State school	2,446	84.1	16,702	87.9
State school missing	444	13.3	2,628	12.2

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

We also analyse the proportion of graduates who undertake postgraduate study immediately after leaving university. Figure 4 shows the proportions of graduates undertaking postgraduate study by subject of initial degree. Clearly those in the sciences, maths and computing, social studies, law, linguistics, languages and history are most likely to undertake postgraduate study. The proportion continuing to postgraduate level is extremely high (one in five) in the physical sciences.



Figure 4 Graduates undertaking post-graduate study 6 months after graduation by initial degree subject area

Degree subject	% studying for post graduate qualifications
Medicine and dentistry	1.7
Subjects allied to medicine	3.1
Biological sciences	15.3
Veterinary science, agriculture and related subjects	6.1
Physical sciences	21.4
Maths and computer sciences	10.5
Engineering	9.2
Technologies	6.8
Architecture, building and planning	5.6
Social studies	11.4
Law	15.4
Business and administrative studies	5.2
Communications	4.7
Linguistics, Classics	18.4
European Languages	16.5
Other Languages	15.1
Historical and philosophical studies	18.4
Creative arts and design	8.0
Education	3.5
Combined	6.3

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

Figure 5 shows the proportions of graduates who were enrolled in postgraduate study at 6 months after graduation, by occupation at 3 years. Among those observed in a science occupation at 3 years after graduation, one in ten undertook postgraduate study. By contrast, around one quarter of those observed to be in law at 3 years after graduation undertook postgraduate study.

Figure 5 Graduates undertaking post-graduate study 6 months after graduation by area of professional occupation at 3 years

Professional occupation	% studying for post graduate qualifications 6 months after graduation
Life Science	3.7
Legal	24.3
Business	8.1
Media	6.4
Public	5.4
Scientists	10.6
Education	15.4
Environment	6.2

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

## Regression results

We now consider the association between the socio-economic background of the graduate and their own occupation at 6 months and 3 years after graduation. We use a multiple regression approach, controlling for many factors at once, as described above. Full tables are at Appendix A.

Figure 6 below addresses the question: to what extent are new graduates from lower socio-economic backgrounds less likely to enter the highest status occupations (SOC Group 1) 6 months after graduation? The table shows the strength of the relationship between parental socio-economic status, whether the individual lived in an area with low HE participation rate and whether they attended a private school, and the likelihood that they are working in the highest status occupations.

The first column shows the raw associations. The second column controls for characteristics that influence occupational choice, such as gender, age, ethnicity and region of work at 6 months. The third column controls for prior achievement of the individual on entry into higher education (UCAS tariff), degree subject, degree class and type of higher education institution attended (i.e. Russell Group, 1994 institution, Oxbridge etc.).

Across all three models, there is little association between a graduate's socio-economic background and their occupation at 6 months after graduation. In column three we see that only the coefficient on the state school variable remains significant. The coefficient can be interpreted to mean that, controlling for social class differences, attainment differences and the full range of

other factors, those attending a state school are around 1 percentage point less likely to gain access to the highest status occupations 6 months after graduation.

In columns four and five the same full model is estimated separately for men and women. We see that the negative association between attending a state school and entering the highest status occupations is large and statistically significant for males only. Male graduates who went to a state school were around 2 percentage points less likely to enter the highest status occupations 6 months after graduation, even after allowing for differences in their academic achievement, degree subject, higher education institution type etc.

We also modelled graduates' access to SOC Group 2 occupations (the second highest status occupations) and found that individuals who attended private schools were *less* likely to enter occupations as compared to individuals from state schools (results in appendix).

These results only hold for English and Welsh students. When we consider the relationship between socio-economic background and occupational status for Scottish domiciled students we find no evidence of a socio-economic gap in access to the highest status occupations (results in appendix). This is an interesting finding and one we note in the executive summary merits further investigation.

In summary, at 6 months after graduation, male graduates in England and Wales who attended a private school were more likely to be the highest status occupations than otherwise similar graduates who attended a state school.

Figure 6 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation by socio-economic background characteristics

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.000 (.012)	-0.001 (.011)	0.007 (.010)	0.015 (.018)	0.001 (.011)
Lower managerial, administrative and professional	0.016 (.012)	0.015 (.012)	0.017 (.010)	0.027 (.018)	0.013 (.012)
Intermediate	0.013 (.013)	0.012 (.013)	0.012 (.011)	0.007 (.018)	0.014 (.013)
Small employers and own account workers	0.023 (.015)	0.024 (.015)*	0.019 (.013)*	0.017 (.021)	0.019 (.015)
Lower supervisory and technical	0.000 (.015)	0.001 (.015)	0.005 (.012)	0.009 (.022)	0.005 (.015)
Semi-routine	0.005 (.013)	0.003 (.013)	0.005 (.011)	0.003 (.019)	0.008 (.013)
Routine	<i>Baseline</i>	<i>Baseline</i>	<i>Baseline</i>	<i>Baseline</i>	<i>Baseline</i>
Never worked and long-term unemployed	-0.015 (.066)	-0.027 (.056)	-0.028 (.039)	-0.012 (.071)	dropped
Low HE participation area	-0.008 (.007)	-0.009 (.007)	-0.009 (.006)	-0.007 (.010)	-0.010 (.006)
Attended state school	-0.010 (.007)	-0.006 (.006)	-0.010 (.006)*	-0.022 (.009)**	0.000 (.007)
N	21,026	21,026	21,026	8,944	12,077
Adjusted R-squared	0.002	0.010	0.050	0.055	0.057

Source: HESA (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.

Figure 7 below addresses the question: to what extent are new graduates from lower socio-economic backgrounds less likely to be in the highest status occupations 3 years after graduation?

Specifically, the table shows the strength of the relationship between parental socio-economic status, whether the individual lived in an area with low HE participation rate and whether they attended a private school, and the likelihood that they are working the highest status occupations (SOC Group 1) 3 years after graduation.

The first column shows the raw associations. The second column controls for other factors that also influence occupational choice, such as gender, age, ethnicity and region of work at 3 years. The third column controls for prior achievement of the individual on entry into higher education (UCAS tariff), degree subject, degree class and type of higher education institution attended (i.e. Russell Group, 1994 institution, Oxbridge etc.).

The results from column three are striking. By 3 years after graduation, and allowing for other factors that influence occupation, there is a large statistically significant socio-economic gap in the likelihood of securing a role in the highest status occupations. Individuals from a family with a higher socio-economic status are more likely to work in the highest status occupations. By contrast, those who originate from areas with low HE participation and who attended state schools are significantly less likely to secure such occupations. The magnitude of these effects are such that an individual who has a parent who is a manager and who attended a private school is around 7 percentage points more likely to enter the highest status occupations. The results by gender imply that the social gradient in the likelihood of securing a high status occupation is much steeper for males. Thus male graduates from a managerial background who attended a private school are around 10 percentage points more likely to enter the highest status occupations (SOC Group 1). To provide some sort of comparison, one might note that males are around 2.3 percentage points more likely to achieve a high status occupation 3 years after graduation as compared to females. Black graduates are 2.7 percentage points less likely to enter a high status occupation than their white peers and Scottish domiciled students are 4 percentage points less likely.

These results are robust to a model which compares graduates from the same institution rather than the same *type* of institution (i.e. to the inclusion of institution fixed effects). As was found for the 6 months results, these findings are specific to England and Wales. There is no evidence of a socio-economic gradient for those living in Scotland.

We also modelled the likelihood of a graduate securing either a SOC Group 1 or 2 occupation, 3 years after graduation. The results suggested a statistically insignificant association between socio-economic background and securing a SOC Group 2 occupation.

Figure 7 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation by socio-economic background characteristics

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.023 (.014)*	0.014 (.014)	0.020 (.014)	0.034 (.023)	0.012 (.016)
Lower managerial, administrative and professional	0.044 (.014)***	0.037 (.014)***	0.039 (.014)***	0.062 (.023)***	0.023 (.017)
Intermediate	0.032 (.015)**	0.025 (.015)*	0.025 (.015)*	0.061 (.026)**	-0.001 (.016)
Small employers and own account workers	0.033 (.017)**	0.032 (.017)**	0.029 (.016)*	0.053 (.029)**	0.012 (.019)
Lower supervisory and technical	0.018 (.018)	0.016 (.018)	0.017 (.017)	0.025 (.029)	0.016 (.021)
Semi-routine	0.025 (.016)	0.021 (.016)	0.019 (.015)	0.018 (.025)	0.018 (.019)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.003 (.071)	-0.004 (.067)	-0.031 (.056)	-0.064 (.080)	0.003 (.083)
Low HE participation area	-0.018 (.008)**	-0.016 (.008)*	-0.018 (.008)**	-0.016 (.013)	-0.018 (.010)*
Attended state school	-0.037 (.007)***	-0.026 (.007)***	-0.029 (.007)***	-0.039 (.012)**	-0.019 (.009)**
N	24,981	24,981	24,981	10,664	14,317
Adjusted R-squared	0.003	0.012	0.047	0.047	0.053

Source: Higher Education Statistics Agency (HESA) (2011) *Destinations of Leavers from Higher Education* (2006/07).

Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.

Figure 8 below addresses the question: how important is post-graduate study as a route by which higher socio-economic status students enter the professions?

We start by considering the relationship between socio-economic background and undertaking postgraduate study 6 months after graduation, after controlling for other characteristics that influence whether or not an individual undertakes postgraduate study. The first column shows the raw associations between socio-economic background and postgraduate study. The second column controls for other factors that also influence educational choices, such as gender, age, ethnicity and region. The final column controls for prior achievement of the individual on entry into higher education (UCAS tariff), degree subject, degree class, type of higher education institution attended (i.e. Russell Group, 1994 institution, Oxbridge etc.).

Figure 8 clearly shows that type of school attended and whether someone lives in a low HE participation area does not significantly impact on the likelihood of undertaking full-time postgraduate study at 6 months (once we control for other factors – i.e. as shown in column 3). However, parental socio-economic background is statistically significant. Broadly coming from a higher SES background increases your chances of undertaking postgraduate study by 2-4 percentage points, though the results by gender indicate that this effect is largely driven by females.

It is also the case that having an unemployed parent *increases* the chances of a student undertaking full time postgraduate study. However, we only observe 5 individuals who are in full-time postgraduate study at 6 months *and* who have unemployed parents. Hence this result is not interpretable.

Figure 8 Likelihood of graduates entering full time post graduate study 6 months after graduation by socio-economic background characteristics

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.065 (.015)***	0.054 (.014)***	0.026 (.013)**	-0.008 (.017)	0.051 (.019)***
Lower managerial, administrative and professional	0.050 (.014)***	0.042 (.014)***	0.023 (.013)*	-0.001 (.017)	0.041 (.018)**
Intermediate	0.052 (.016)***	0.051 (.015)***	0.036 (.014)***	0.021 (.020)	0.045 (.020)**
Small employers and own account workers	0.017 (.016)	0.009 (.015)	0.006 (.014)	-0.014 (.018)	0.020 (.020)
Lower supervisory and technical	0.037 (.018)**	0.029 (.018)*	0.025 (.017)	-0.014 (.020)	0.055 (.025)**
Semi-routine	0.023 (.015)	0.018 (.015)	0.012 (.014)	0.001 (.020)	0.016 (.019)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.058 (.077)	0.079 (.081)	0.206 (.100)***	dropped	0.420 (.132)***
Low HE participation area	-0.006 (.008)	-0.003 (.008)	0.004 (.008)	0.013 (.012)	-0.003 (.010)
Attended state school	-0.030 (.007)***	-0.031 (.007)***	-0.003 (.006)	0.017 (.008)**	-0.020 (.009)**
N	30,044	30,044	30,044	12,867	17,162
Adjusted R-squared	0.015	0.053	0.110	0.137	0.102

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.



Our interest however, is primarily in graduates' access to the highest status occupations rather than postgraduate study per se. Given the social gradient in access to postgraduate study observed in Figure 8, it is important to determine whether postgraduate study is an important route by which individuals can access high status occupations. Figure 9 below shows the likelihood of being in the highest status occupations (SOC Group 1) 3 years after graduation, controlling for whether or not the individual undertook full time postgraduate study at 6 months. In other words, we estimate the final model from column 3 in Figure 7 but include whether or not the graduate undertook postgraduate study to see if this affects the coefficients on the socio-economic background variables.

The main results that we described for Figure 7 above still hold, i.e. those who attended state schools are significantly less likely to secure the highest status occupations and the other social status variables are significant too even when we control for prior attainment. Interestingly, the coefficient on postgraduate study is negative. At face value this implies that when we allow for social background, those who have taken postgraduate study are less likely to be in the highest status occupations. This could be because insufficient time has elapsed following the postgraduate study to allow the individual to progress to these high status occupations. It might also however reflect the fact that some individuals take postgraduate study because they have not been successful in finding a job and hence it may be that these individuals are less likely to secure a role within the highest status occupations. We have some evidence for the former explanation. In the appendix we show a model (Figure 38) where the dependent variable is the likelihood of securing a SOC Group 2 occupation 3 years after graduation. In that model undertaking postgraduate study at 6 months is positively and significantly associated with securing a Group 2 occupation. Hence postgraduate study is clearly helping individuals into somewhat higher level occupations but it may be that those who secure the very highest status occupations (SOC Group 1) just 3 years after graduating go straight into the labour market rather than detouring through postgraduate study.

In summary, we find that allowing for whether or not an individual undertook postgraduate study does not explain the social gradient that we see in access to the highest status occupations 3 years after graduation.

Figure 9 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation by socio-economic background characteristics without and with controlling for postgraduate study at 6 months

	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment
Postgraduate study at 6 months		-0.058 (.005)***
Higher managerial, administrative and professional	0.020 (.014)	0.022 (.014)
Lower managerial, administrative and professional	0.039 (.014)***	0.040 (.014)***
Intermediate	0.025 (.015)*	0.027 (.015)*
Small employers and own account workers	0.029 (.016)*	0.030 (.016)*
Lower supervisory and technical	0.017 (.017)	0.018 (.018)
Semi-routine	0.019 (.015)	0.019 (.015)
Routine	Baseline	Baseline
Never worked and long-term unemployed	-0.031 (.056)	-0.022 (.059)
Low HE participation area	-0.018 (.008)**	-0.018 (.008)**
Attended state school	-0.029 (.007)***	-0.030 (.007)***
N	24981	24981
Adjusted R-squared	0.047	0.051

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.

We also considered access to specific high status professions, as identified in the Milburn report. We have modelled access to Life Science occupations, e.g. doctors, dentists etc., for completeness but some caution is needed when considering these occupational groups. For many Life Science occupations, access to a particular degree and success in that degree almost guarantees access to the relevant medical occupation. It is therefore difficult to interpret the results for Life Sciences.

The results for these top professions are shown below in Figures 10 and 11, separately for males and females. For males, by and large parental socio-economic background and whether or not the individual lived in a low HE participation area are not statistically significant predictors of whether or not the graduate accesses one of these high status professions. However, for a number of key

professions (those in life sciences, management and public services) attending a state school reduced the likelihood of a graduate entering the profession, though the effects are modest (up to 2 percentage point lower probability). Males who attended state schools are significantly more likely to enter professions in the built environment (e.g. architecture) and science, though in the case of the latter the magnitude of the effect is almost inconsequential.

For females, results are similar. Broadly parental socio-economic status variables are insignificant. However, females who attended a state school are significantly less likely to enter a number of high status professions (Life sciences, legal and management). The magnitude of these effects is modest: individuals who attended state schools are up to 2 percentage points less likely to enter such professions. Equally women who attended state schools were significantly more likely to enter education, media and public service occupations.

## Conclusions

The results suggest:

- 6 months after graduation, socio-economic background does not impact on the likelihood of entering the highest status occupations, though those who attended private school have a small increased probability being in the highest status occupations (particularly males);
- 3 years after graduation, individuals from higher socio-economic status backgrounds or who lived in areas with higher levels of HE participation are more likely to be in the highest status occupations. This is particularly so for males.
- 3 years after graduation, individuals who attended state schools are less likely to access the highest status occupations;
- All of the above results hold even when we allow for differences in prior achievement, degree subject, degree class and institution. They also hold when we allow for postgraduate study.

We conclude that socio-economic status does impact on the likelihood of entering the highest status occupations. Much, but certainly not all, of this socio-economic gap arises from the impact of socio-economic background on academic achievement, degree subject, degree class and university choice. We also find that attending a private school has a residual positive impact on the likelihood of securing a higher status occupation.

Therefore in the short term a socio-economic gap in the job status of graduates is not observed. This may be because 6 months is too soon to observe graduates and many are not in their final occupational choice, and indeed many are undergoing postgraduate study. Given that socio-economic background does play a role in whether or not a student undertakes further study, this

implies that we need to wait a few years after graduation before we can observe the extent of any socio-economic gap in occupational achievement.

The role of socio-economic background on access to the highest status occupations is stronger for males. This may reflect the fact that women are more likely to work in the public sector and in occupations where perhaps the entry and promotion criteria are more clearly defined.

Our results indicate a persistent advantage from having attended a private school. This raises questions about whether the advantage that private school graduates have is because they are better socially or academically prepared, have better networks or make different occupational choices. Whilst we do allow for formal differences in academic achievement, we cannot model whether privately educated students are better prepared for job interviews and for the world of work directly. Clearly though this issue merits further investigation.

Lastly, we do not observe such strong socio-economic gaps for Scottish domiciled students, again suggesting that the Scottish education system or labour market may work somewhat differently and this too merits further investigation.

Figure 10 Likelihood of graduates entering selected high status professions 6 months after graduation by socio-economic background characteristics (MALES)

	Life sciences controlling for demographics	Legal controlling for demographics and prior attainment	Management and business controlling for demographics and prior attainment	Media and creative controlling for demographics and prior attainment	Public services controlling for demographics and prior attainment	Scientists controlling for demographics and prior attainment	Education controlling for demographics and prior attainment	Built environment controlling for demographics and prior attainment
Higher managerial, administrative and professional	-0.002 (.004)	0.009 (.003)	-0.008 (.009)	0.001 (.007)	-0.004 (.004)	0.000 (.002)	-0.000 (.010)	-0.006 (.017)
Lower managerial, administrative and professional	-0.005 (.004)	0.002 (.003)	-0.023 (.008)***	0.001 (.007)	-0.001 (.004)	-0.001 (.002)	0.002 (.010)	-0.002 (.017)
Intermediate	-0.006 (.003)	0.001 (.003)	-0.008 (.009)	0.000 (.007)	-0.001 (.004)	-0.002 (.002)	0.001 (.010)	-0.018 (.016)
Small employers and own account workers	-0.005 (.004)	-0.002 (.002)	-0.007 (.010)	-0.005 (.007)	-0.004 (.004)	0.004 (.006)	-0.001 (.011)	-0.006 (.019)
Lower supervisory and technical	-0.001 (.006)	0.001 (.005)	-0.014 (.009)	0.001 (.009)	-0.005 (.003)	0.003 (.005)	0.013 (.015)	-0.026 (.017)
Semi-routine	-0.005 (.004)	0.000 (.003)	-0.015 (.008)	0.001 (.008)	-0.003 (.004)	0.003 (.005)	-0.001 (.011)	0.005 (.020)
Routine	Base	Base	Base	Base	Base	Base	Base	Base
Never worked and long-term unemployed	Dropped	Dropped	Dropped	0.021 (.041)	Dropped	Dropped	Dropped	Dropped
Low HE participation area	-0.009 (.002)***	-0.002 (.001)	-0.004 (.007)	-0.010 (.003)**	-0.002 (.003)	0.005 (.003)	0.001 (.007)	-0.004 (.011)
Attended state school	-0.019 (.004)***	-0.001 (.001)	-0.020 (.006)***	0.001 (.004)	-0.011 (.004)***	0.004 (.001)***	0.007 (.006)	0.031 (.009)***
N	10,631	6,686	10,186	10,455	10,499	6,045	10,631	10,605

Adjusted R-squared	0.206	0.402	0.135	0.225	0.086	0.293	0.154	0.278
--------------------	-------	-------	-------	-------	-------	-------	-------	-------

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.

Figure 11 Likelihood of graduates entering selected high status professions 6 months after graduation by socio-economic background characteristics (FEMALES)

	Life sciences controlling for demographics	Legal controlling for demographics and prior attainment	Management and business controlling for demographics and prior attainment	Media and creative controlling for demographics and prior attainment	Public services controlling for demographics and prior attainment	Scientists controlling for demographics and prior attainment	Education controlling for demographics and prior attainment	Built environment controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.039 (.014)***	0.003 (.003)	0.004 (.007)	-0.001 (.005)	0.005 (.006)	-0.003 (.001)**	-0.018 (.014)	0.003 (.005)
Lower managerial, administrative and professional	0.025 (.012)**	0.002 (.003)	-0.005 (.006)	-0.003 (.005)	0.003 (.006)	-0.001 (.001)	0.001 (.015)	-0.000 (.004)
Intermediate	0.013 (.012)	0.003 (.004)	-0.001 (.006)	0.003 (.006)	-0.000 (.006)	-0.001 (.001)	-0.001 (.015)	0.000 (.005)
Small employers and own account workers	0.014 (.014)	0.004 (.005)	-0.000 (.007)	0.002 (.007)	-0.002 (.006)	-0.002 (.001)	-0.011 (.016)	0.003 (.006)
Lower supervisory and technical	0.000 (.012)	0.003 (.005)	0.005 (.010)	-0.007 (.005)	-0.004 (.006)	-0.002 (.001)	0.013 (.020)	0.008 (.008)
Semi-routine	0.001 (.011)	-0.002 (.002)	0.002 (.008)	-0.011 (.003)**	0.005 (.007)	-0.001 (.001)	0.002 (.016)	-0.001 (.005)
Routine	Base	Base	Base	Base	Base	Base	Base	Base
Never worked and long-term unemployed	0.046 (.075)	Dropped	Dropped	-0.000 (.025)	Dropped	Dropped	0.096 (.118)	Dropped
Low HE participation area	-0.006 (.004)	-0.000 (.001)	-0.001 (.004)	-0.006 (.003)*	0.000 (.003)	0.001 (.001)	-0.006 (.009)	-0.005 (.002)*
Attended state school	-0.019 (.005)***	-0.005 (.002)***	-0.013 (.004)***	0.005 (.003)*	0.007 (.003)*	0.001 (.001)	0.027 (.009)***	-0.001 (.002)

N	14,299	11,775	14,041	14,032	14,027	9,970	14,299	14,302
Adjusted R-squared	0.136	0.381	0.156	0.193	0.096	0.284	0.185	0.258

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators.



## References

- Bratti, M., & Manichini, L. (2003). Differences in early occupational earnings of UK male graduates by degree subject: Evidence from the 1980–1993 USR. IZA, DP 890.
- Bratti, M., Naylor, R., & Smith, J. (2005). Variations in the wage returns to a first degree: Evidence from the British cohort study 1970. IZA, DP 1631.
- Chevalier, A. (2010). Does higher education quality matter in the UK. Mimeo: Royal Holloway.
- Chevalier, A. (2011). 'Subject Choice and Earnings of UK Graduates' *Economics of Education Review*, pp. 1187-1201.
- Cabinet Office (2011) *Opening Doors, Breaking Barriers: A Strategy for Social Mobility*. London: Cabinet Office.
- Macmillan, L. (2009). *Social Mobility and the Professions*. Centre for Market and Public Organisation.
- Milburn, A. (2009) Panel on Fair Access to the Professions, *Unleashing Aspiration: The Final Report of the Panel on Fair Access to the Professions*. London: Cabinet Office.
- Walker, I., & Zhu, Y. (2005). The college wage premium over education, and the expansion of higher education in the UK. *Scandinavian Journal of Economics*, 110, 695–709.
- Walker, I. & Zhu, Y. (2011). Differences by degree: Evidence of the net financial rates of return to undergraduate studies for England and Wales. *Economics of Education Review*, 30, 1177–1186.

## Appendix A

Figure 12 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by parental occupation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.003 (.012)	0.001 (.011)	0.009 (.010)
Lower managerial, administrative and professional	0.018 (.012)	0.016 (.012)	0.018 (.010)
Intermediate	0.014 (.013)	0.013 (.013)	0.013 (.011)
Small employers and own account workers	0.025 (.015)*	0.025 (.015)*	0.021 (.013)*
Lower supervisory and technical	0.000 (.015)	0.001 (.015)	0.005 (.013)
Semi-routine	0.006 (.013)	0.004 (.013)	0.006 (.011)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.014 (.067)	-0.027 (.056)	-0.028 (.040)
N	21,026	21,026	21,026
Pseudo - R-squared	0.001	0.010	0.049

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 13 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by HE participation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Low HE participation area	-0.009 (.007)	-0.010 (.007)	-0.010 (.006)*
N	21,026	21,026	21,026
Adjusted R-squared	0.000	0.008	0.048

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 14 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, by type of school attended

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
State school	-0.011 (.006)*	-0.007 (.006)	-0.011 (.006)**
N	21,026	21,026	21,026
Adjusted R-squared	0.001	0.008	0.048

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 15 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, all variables together (SCOTLAND only)

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Professional	-0.031 (.023)	-0.026 (.024)	-0.017 (.016)
Lower manager	-0.043 (.023)*	-0.039 (.022)	-0.027 (.014)
Intermediate	-0.029 (.022)	-0.028 (.022)	-0.022 (.013)*
Small employer	-0.030 (.024)	-0.035 (.021)	-0.028 (.011)
Supervisor	-0.023 (.026)	-0.018 (.028)	-0.016 (.016)
Semi-routine	-0.059 (.019)**	-0.059 (.019)**	-0.037 (.008)**
Routine	Baseline	Baseline	Baseline
Unemployed	Dropped	Dropped	Dropped
Low participation	-0.027 (.031)	-0.023 (.034)	-0.018 (.019)
State school	0.012 (.018)	0.029 (.016)	0.013 (.012)
N	1,796	1,715	1,681
Adjusted R-squared	0.013	0.052	0.130

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 16 Likelihood of graduates entering highest status occupations (SOC Group 1) 6 months after graduation, all variables together

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.000 (.012)	-0.001 (.011)	0.007 (.010)	0.015 (.018)	0.001 (.011)
Lower managerial, administrative and professional	0.016 (.012)	0.015 (.012)	0.017 (.010)	0.027 (.018)	0.013 (.012)
Intermediate	0.013 (.013)	0.012 (.013)	0.012 (.011)	0.007 (.018)	0.014 (.013)
Small employers and own account workers	0.023 (.015)	0.024 (.015)*	0.019 (.013)*	0.017 (.021)	0.019 (.015)
Lower supervisory and technical	0.000 (.015)	0.001 (.015)	0.005 (.012)	0.009 (.022)	0.005 (.015)
Semi-routine	0.005 (.013)	0.003 (.013)	0.005 (.011)	0.003 (.019)	0.008 (.013)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.015 (.066)	-0.027 (.056)	-0.028 (.039)	-0.012 (.071)	dropped
Low HE participation area	-0.008 (.007)	-0.009 (.007)	-0.009 (.006)	-0.007 (.010)	-0.010 (.006)
Attended state school	-0.010 (.007)	-0.006 (.006)	-0.010 (.006)*	-0.022 (.009)**	0.000 (.007)
N	21,026	21,026	21,026	8,944	12,077
Adjusted R-squared	0.002	0.010	0.050	0.055	0.057

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 17 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by parental occupation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.061 (.020)***	0.080 (.020)***	0.016 (.021)
Lower managerial, administrative and professional	0.031 (.019)	0.055 (.020)***	0.015 (.021)
Intermediate	0.011 (.021)	0.028 (.021)	0.000 (.022)
Small employers and own account workers	0.049 (.023)**	0.061 (.024)***	0.023 (.025)
Lower supervisory and technical	0.045 (.025)*	0.061 (.026)**	0.026 (.027)
Semi-routine	0.003 (.022)	0.019 (.022)	-0.002 (.023)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.172 (.107)	-0.208 (.094)*	-0.140 (.120)
N	21,026	21,026	21,026
Adjusted R-squared	0.002	0.042	0.172

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 18 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by HE participation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Low HE participation area	-0.057 (.013)***	-0.048 (.013)***	-0.030 (.014)**
N	21,026	21,026	21,026
Adjusted R-squared	0.002	0.0410	0.1724

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 19 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, by type of school attended

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Attended state school	-0.050 (.011)***	-0.040 (.011)***	0.026 (.012)**
N	21,026	21,026	21,026
Adjusted R-squared	0.001	0.041	0.1722

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 20 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, all variables together (SCOTLAND only)

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.063 (.065)	0.082 (.066)	0.111 (.073)
Lower managerial, administrative and professional	0.053 (.064)	0.085 (.065)	0.072 (.074)
Intermediate	-0.042 (.069)	-0.029 (.071)	-0.085 (.082)
Small employers and own account workers	0.076 (.076)	0.096 (.077)	0.117 (.083)
Lower supervisory and technical	0.069 (.079)	0.089 (.080)	0.064 (.090)
Semi-routine	-0.040 (.077)	-0.031 (.079)	-0.131 (.091)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	Dropped	Dropped	Dropped
Low HE participation area	-0.125 (.076)	-0.125 (.078)	-0.143 (.096)
Attended state school	-0.085 (.038)**	-0.043 (.040)	-0.002 (.045)
N	1,796	1,796	1,795
Adjusted R-squared	0.011	0.039	0.274

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 21 Likelihood of graduates entering high status occupations (SOC Group 2) 6 months after graduation, all variables together

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.047 (.020)**	0.069 (.020)***	0.014 (.021)	0.062 (.025)*	-0.019 (.027)
Lower managerial, administrative and professional	0.020 (.019)	0.047 (.020)**	0.012 (.021)	0.041 (.024)	-0.005 (.027)
Intermediate	0.002 (.021)	0.020 (.021)	-0.003 (.022)	0.027 (.026)	-0.022 (.028)
Small employers and own account workers	0.040 (.023)*	0.054 (.024)**	0.022 (.025)	0.072 (.029)*	-0.013 (.031)
Lower supervisory and technical	0.042 (.025)*	0.059 (.026)**	0.023 (.027)	0.040 (.032)	0.017 (.035)
Semi-routine	-0.002 (.022)	0.017 (.022)	-0.004 (.023)	0.032 (.027)	-0.025 (.029)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.177 (.105)	-0.211 (.093)*	-0.142 (.120)	-0.146 (.165)	-0.076 (.234)
Low HE participation area	-0.051 (.013)***	-0.040 (.013)***	-0.030 (.014)**	-0.055 (.022)**	-0.013 (.019)
Attended state school	-0.041 (.011)***	-0.030 (.011)***	0.028 (.017)**	0.022 (.019)	0.032 (.017)*
N	21,026	21,026	21,026	8,944	12,082
Adjusted R-squared	0.004	0.043	0.173	0.164	0.163

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 22 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by parental occupation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.031 (.014)**	0.020 (.014)	0.025 (.014)*
Lower managerial, administrative and professional	0.050 (.014)***	0.041 (.014)***	0.043 (.014)***
Intermediate	0.037 (.016)**	0.028 (.015)*	0.028 (.015)**
Small employers and own account workers	0.037 (.017)**	0.035 (.017)**	0.032 (.017)**
Lower supervisory and technical	0.019 (.018)	0.016 (.018)	0.017 (.017)
Semi-routine	0.027 (.016)*	0.023 (.016)	0.021 (.015)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.005 (.071)	-0.004 (.068)	-0.030 (.056)**
N	24,981	24,981	24,981
Adjusted R-squared	0.001	0.011	0.045

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 23 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by HE participation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Low HE participation area	-0.022 (.008)***	-0.019 (.008)**	-0.021 (.008)**
N	24,981	24,981	24,981
Adjusted R-squared	0.001	0.010	0.045

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.



Figure 24 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, by type of school attended

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Attended state school	-0.039 (.007)***	-0.027 (.007)***	-0.030 (.007)***
N	24,981	24,981	24,981
Adjusted R-squared	0.002	0.010	0.045

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 25 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, all variables together (SCOTLAND only)

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.043 (.043)	0.027 (.040)	0.029 (.034)
Lower managerial, administrative and professional	0.029 (.041)	0.021 (.039)	0.022 (.032)
Intermediate	0.003 (.042)	-0.002 (.040)	0.007 (.033)
Small employers and own account workers	-0.046 (.033)	-0.056 (.028)	-0.038 (.020)
Lower supervisory and technical	0.006 (.048)	0.001 (.045)	0.004 (.036)
Semi-routine	0.020 (.050)	0.005 (.046)	0.021 (.041)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.102 (.212)	0.097 (.209)	-0.007 (.094)
Low HE participation area	-0.014 (.045)	-0.000 (.048)	-0.004 (.034)
Attended state school	-0.008 (.021)	0.013 (.019)	0.009 (.015)
N	2,072	2,066	2,033
Adjusted R-squared	0.030	0.060	0.139

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 26 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation, all variables together

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.023 (.014)*	0.014 (.014)	0.020 (.014)	0.034 (.023)	0.012 (.016)
Lower managerial, administrative and professional	0.044 (.014)***	0.037 (.014)***	0.039 (.014)***	0.062 (.023)***	0.023 (.017)
Intermediate	0.032 (.015)**	0.025 (.015)*	0.025 (.015)*	0.061 (.026)**	-0.001 (.016)
Small employers and own account workers	0.033 (.017)**	0.032 (.017)**	0.029 (.016)*	0.053 (.029)**	0.012 (.019)
Lower supervisory and technical	0.018 (.018)	0.016 (.018)	0.017 (.017)	0.025 (.029)	0.016 (.021)
Semi-routine	0.025 (.016)	0.021 (.016)	0.019 (.015)	0.018 (.025)	0.018 (.019)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.003 (.071)	-0.004 (.067)	-0.031 (.056)	-0.064 (.080)	0.003 (.083)
Low HE participation area	-0.018 (.008)**	-0.016 (.008)*	-0.018 (.008)**	-0.016 (.013)	-0.018 (.010)*
Attended state school	-0.037 (.007)***	-0.026 (.007)***	-0.029 (.007)***	-0.039 (.012)**	-0.019 (.009)**
N	24,981	24,981	24,981	10,664	14,317
Adjusted R-squared	0.003	0.012	0.047	0.047	0.053

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 27 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by parental occupation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.050 (.018)***	0.054 (.018)***	0.007 (.019)
Lower managerial, administrative and professional	0.049 (.018)***	0.053 (.018)***	0.024 (.019)
Intermediate	0.017 (.019)	0.021 (.019)	-0.001 (.020)
Small employers and own account workers	0.014 (.021)	0.019 (.021)	-0.002 (.022)
Lower supervisory and technical	0.041 (.023)*	0.042 (.023)*	0.016 (.024)
Semi-routine	0.013 (.020)	0.019 (.020)	0.004 (.021)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.229 (.087)**	-0.230 (.087)**	-0.139 (.102)
N	24,981	24,981	24,981
Adjusted R-squared	0.001	0.010	0.074

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 28 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by HE participation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Low HE participation area	-0.042 (.012)***	-0.046 (.012)***	-0.030 (.012)**
N	24,981	24,981	24,981
Adjusted R-squared	0.000	0.010	0.073

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 29 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, by type of school attended

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Attended state school	-0.045 (.010)***	-0.047 (.010)***	-0.001 (.011)
N	24,981	24,981	24,981
Adjusted R-squared	0.001	0.010	0.073

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 30 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, all variables together (Scotland only)

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.063 (.065)	0.082 (.066)	0.111 (.073)
Lower managerial, administrative and professional	0.053 (.064)	0.085 (.065)	0.072 (.074)
Intermediate	-0.042 (.069)	-0.029 (.071)	-0.085 (.082)
Small employers and own account workers	0.076 (.076)	0.096 (.077)	0.117 (.083)
Lower supervisory and technical	0.069 (.079)	0.089 (.080)	0.064 (.090)
Semi-routine	-0.040 (.077)	-0.031 (.079)	-0.131 (.091)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	Dropped	Dropped	Dropped
Low HE participation area	-0.125 (.076)	-0.125 (.078)	-0.143 (.096)
Attended state school	-0.085 (.038)**	-0.043 (.040)	-0.002 (.045)
N	2,072	2,070	2,069
Adjusted R-squared	0.011	0.030	0.147

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 31 Likelihood of graduates entering high status occupations (SOC Group 2) 3 years after graduation, all variables together

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.040 (.018)**	0.044 (.018)**	0.003 (.019)	0.006 (.029)	0.001 (.025)
Lower managerial, administrative and professional	0.042 (.018)**	0.046 (.018)**	0.020 (.019)	0.024 (.028)	0.016 (.025)
Intermediate	0.011 (.019)	0.015 (.019)	-0.004 (.020)	0.001 (.030)	-0.010 (.026)
Small employers and own account workers	0.007 (.021)	0.013 (.021)	-0.005 (.022)	-0.000 (.033)	-0.009 (.019)
Lower supervisory and technical	0.040 (.023)*	0.040 (.023)*	0.015 (.024)	-0.005 (.037)	0.029 (.032)
Semi-routine	0.009 (.020)	0.016 (.020)	0.001 (.021)	-0.008 (.032)	0.006 (.028)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	-0.231 (.087)**	-0.230 (.087)**	-0.142 (.102)	-0.418 (.117)**	0.062 (.137)
Low HE participation area	-0.035 (.012)***	-0.039 (.012)***	-0.029 (.012)**	-0.032 (.020)*	-0.027 (.017)
Attended state school	-0.038 (.010)***	-0.040 (.010)***	-0.000 (.011)	-0.000 (.016)	-0.004 (.015)
N	24,981	24,981	24,981	10,664	14,317
Adjusted R-squared	0.002	0.011	0.074	0.078	0.074

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment. Missing dummies included for parental SEC, low participation and state school indicators

Figure 32 Likelihood of graduates entering full time post-graduate study at 6 months, by parental occupation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.076 (.015)***	0.059 (.014)***	0.026 (.013)**
Lower managerial, administrative and professional	0.057 (.014)***	0.045 (.014)***	0.023 (.013)*
Intermediate	0.059 (.016)***	0.053 (.015)***	0.036 (.014)***
Small employers and own account workers	0.023 (.016)	0.012 (.015)	0.006 (.014)
Lower supervisory and technical	0.039 (.018)**	0.029 (.018)*	0.045 (.017)
Semi-routine	0.024 (.016)	0.019 (.015)	0.012 (.017)
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.062 (.078)	0.080 (.081)	0.207 (.100)***
N	30,044	30,044	30,044
Adjusted R-squared	0.003	0.052	0.110

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 33 Likelihood of graduates entering full time post-graduate study at 6 months, by HE participation

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Low HE participation area	-0.014 (.008)*	-0.010 (.008)	0.003 (.008)
N	30,044	30,044	30,044
Adjusted R-squared	0.010	0.050	0.109

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 34 Likelihood of graduates entering full time post-graduate study at 6 months, by type of school attended

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Attended state school	-0.040 (.007)***	-0.035 (.007)***	-0.003 (.006)
N	30,044	30,044	30,044
Adjusted R-squared	0.003	0.051	0.109

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 35 Likelihood of graduates entering full time post-graduate study at 6 months, all variables together (SCOTLAND only)

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment
Higher managerial, administrative and professional	0.102 (.058)*	0.071 (.055)	0.010 (.041)
Lower managerial, administrative and professional	0.087 (.056)*	0.068 (.054)	0.014 (.042)
Intermediate	0.091 (.065)	0.068 (.062)	0.014 (.046)
Small employers and own account workers	0.065 (.067)	0.022 (.059)	-0.027 (.037)
Lower supervisory and technical	0.082 (.072)	0.061 (.068)	0.027 (.054)
Semi-routine	0.212 (.082)***	0.170 (.079)**	0.117 (.072)**
Routine	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.506 (.241)**	0.508 (.245)**	0.658 (.210)***
Low HE participation area	0.063 (.060)	0.088 (.063)	0.085 (.060)*
Attended state school	-0.026 (.022)	-0.028 (.023)	0.003 (.019)
N	2,470	2,461	2,316
Adjusted R-squared	0.001	0.048	0.170

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 36 Likelihood of graduates entering full time post-graduate study at 6 months, all variables together

	Raw associations	Controlling for demographics	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment - MALES only	Controlling for demographics and prior attainment - FEMALES only
Higher managerial, administrative and professional	0.065 (.015)***	0.054 (.014)***	0.026 (.013)**	-0.008 (.017)	0.051 (.019)***
Lower managerial, administrative and professional	0.050 (.014)***	0.042 (.014)***	0.023 (.013)*	-0.001 (.017)	0.041 (.018)**
Intermediate	0.052 (.016)***	0.051 (.015)***	0.036 (.014)***	0.021 (.020)	0.045 (.020)**
Small employers and own account workers	0.017 (.016)	0.009 (.015)	0.006 (.014)	-0.014 (.018)	0.020 (.020)
Lower supervisory and technical	0.037 (.018)**	0.029 (.018)*	0.025 (.017)	-0.014 (.020)	0.055 (.025)**
Semi-routine	0.023 (.015)	0.018 (.015)	0.012 (.014)	0.001 (.020)	0.016 (.019)
Routine	Baseline	Baseline	Baseline	Baseline	Baseline
Never worked and long-term unemployed	0.058 (.077)	0.079 (.081)	0.206 (.100)***	dropped	0.420 (.132)***
Low participation	-0.006 (.008)	-0.003 (.008)	0.004 (.008)	0.013 (.012)	-0.003 (.010)
State school	-0.030 (.007)***	-0.031 (.007)***	-0.003 (.006)	0.017 (.008)**	-0.020 (.009)**
N	30,044	30,044	30,044	12,867	17,162
Adjusted R-squared	0.015	0.053	0.110	0.137	0.102

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07).

Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.



Figure 37 Likelihood of graduates entering highest status occupations (SOC Group 1) with and without post-graduate dummy, by socio-economic background characteristics

	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment
Post-graduate study at 6 months		-0.058 (.005)***
Higher managerial, administrative and professional	0.020 (.014)	0.022 (.014)
Lower managerial, administrative and professional	0.039 (.014)***	0.040 (.014)***
Intermediate	0.025 (.015)*	0.027 (.015)*
Small employers and own account workers	0.029 (.016)*	0.030 (.016)*
Lower supervisory and technical	0.017 (.017)	0.018 (.018)
Semi-routine	0.019 (.015)	0.019 (.015)
Routine	Baseline	Baseline
Never worked and long-term unemployed	-0.031 (.056)	-0.022 (.059)
Low HE participation area	-0.018 (.008)**	-0.018 (.008)**
Attended state school	-0.029 (.007)***	-0.030 (.007)***
N	24,981	24,981
Adjusted R-squared	0.047	0.051

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 38 Likelihood of graduates entering high status occupations (SOC Group 2) with and without post-graduate dummy, by socio-economic background characteristics

	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment
Post-graduate study at 6 months		0.161 (.010)***
Higher managerial, administrative and professional	0.003 (.019)	0.001 (.019)
Lower managerial, administrative and professional	0.020 (.019)	0.018 (.019)
Intermediate	-0.004 (.020)	-0.010 (.020)
Small employers and own account workers	-0.005 (.022)	-0.006 (.022)
Lower supervisory and technical	0.015 (.024)	0.010 (.024)
Semi-routine	0.001 (.021)	0.001 (.021)
Routine	Baseline	Baseline
Never worked and long-term unemployed	-0.142 (.102)	-0.172 (.101)
Low HE participation area	-0.029 (.012)**	-0.030 (.013)**
Attended state school	-0.000 (.011)	0.002 (.011)
N	24,981	24,981
Adjusted R-squared	0.074	0.082

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.

Figure 39 Likelihood of graduates entering highest status occupations (SOC Group 1) 3 years after graduation (including marginal effects for control variables)

	Controlling for demographics and prior attainment	Controlling for demographics and prior attainment
Post-graduate study at 6 months		-0.058 (.005)***
Higher managerial, administrative and professional	0.020 (.014)	0.022 (.014)
Lower managerial, administrative and professional	0.039 (.014)***	0.040 (.014)***
Intermediate	0.025 (.015)*	0.027 (.015)*
Small employers and own account workers	0.029 (.016)*	0.030 (.016)*
Lower supervisory and technical	0.017 (.017)	0.018 (.018)
Semi-routine	0.019 (.015)	0.019 (.015)
Routine	Baseline	Baseline
Never worked and long-term unemployed	-0.031 (.056)	-0.022 (.059)
Low HE participation area	-0.018 (.008)**	-0.018 (.008)**
Attended state school	-0.029 (.007)***	-0.030 (.007)***
<b>Controls</b>		
<i>Demographic characteristics</i>		
Male	0.024 (.004)***	0.023 (.004)***
Age	0.005 (.002)**	0.004 (.002)*
<i>Ethnicity</i>		
Black	-0.029 (.011)**	-0.027 (.011)**
Asian	-0.026 (.008)***	-0.024 (.008)***
Other	-0.006 (.009)	-0.004 (.009)
White	Baseline	Baseline
Non UK Ethnicity	0.040 (.036)	0.055 (.036)*
<i>Region of work at 6 months</i>		
South West	-0.031 (.008)***	-0.030 (.008)***
South East	0.002 (.007)	0.003 (.007)
East	-0.020 (.009)**	-0.018 (.009)*
West Midlands	-0.017 (.009)*	-0.015 (.009)

East Midlands	-0.008 (.010)	-0.007 (.010)
York	-0.015 (.009)	-0.013 (.009)
North West	-0.026 (.008)***	-0.026 (.008)***
North East	-0.034 (.012)**	-0.033 (.012)**
Northern Ireland	-0.043 (.008)***	-0.039 (.008)***
Scotland	-0.043 (.008)***	-0.040 (.008)***
Wales	-0.035 (.009)***	-0.034 (.009)***
London	Baseline	Baseline
UK other	-0.023 (.012)*	-0.022 (.012)*
Non UK	0.004 (.010)	0.009 (.010)
<i>Prior attainment characteristics</i>		
Oxbridge	-0.029 (.012)**	-0.028 (.012)**
1994	0.001 (.007)	0.003 (.007)
Guild HE	-0.021 (.011)*	-0.022 (.011)*
University Alliance	-0.005 (.007)	-0.007 (.007)
Million +	-0.008 (.008)	-0.010 (.008)
Russell Group	Baseline	Baseline
Other	-0.020 (.007)**	-0.021 (.007)***
UCAS Tariff	-0.001 (.009)**	-0.001 (.009)**
<i>Initial degree subject</i>		
Medicine and dentistry	Baseline	Baseline
Subjects allied to medicine	0.180 (.052)***	0.184 (.052)***
Biological sciences	0.212 (.052)***	0.246 (.052)***
Veterinary science, agriculture and related subjects	0.309 (.067)***	0.316 (.067)***
Physical Sciences	0.206 (.053)***	0.222 (.053)***
Maths and computer sciences	0.243 (.053)***	0.251 (.053)***
Engineering	0.226 (.054)***	0.231 (.054)***
Technologies	0.305 (.071)***	0.311 (.071)***

Architecture, building and planning	0.304 (.063) <sup>***</sup>	0.314 (.063) <sup>***</sup>
Social studies	0.289 (.054) <sup>***</sup>	0.302 (.054) <sup>***</sup>
Law	0.229 (.056) <sup>***</sup>	0.248 (.056) <sup>***</sup>
Business and administrative studies	0.420 (.054) <sup>***</sup>	0.425 (.054) <sup>***</sup>
Communications	0.383 (.061) <sup>***</sup>	0.388 (.061) <sup>***</sup>
Linguistics and classics	0.237 (.055) <sup>***</sup>	0.254 (.055) <sup>***</sup>
European languages	0.299 (.059) <sup>***</sup>	0.315 (.059) <sup>***</sup>
Other languages	0.238 (.072) <sup>***</sup>	0.253 (.072) <sup>***</sup>
Historical and philosophical studies	0.266 (.056) <sup>***</sup>	0.284 (.056) <sup>***</sup>
Creative arts and design	0.254 (.054) <sup>***</sup>	0.260 (.054) <sup>***</sup>
Education	0.052 (.043)	0.058 (.043)
Combined	0.306 (.081) <sup>***</sup>	0.316 (.081) <sup>***</sup>
<i>Degree class</i>		
First	Baseline	Baseline
2:1	0.019 (.006) <sup>***</sup>	0.017 (.006) <sup>***</sup>
2:2	0.021 (.008) <sup>***</sup>	0.018 (.008) <sup>**</sup>
Third	0.018 (.014)	0.013 (.014)
Unclassified	0.005 (.015)	0.002 (.015)
N	24,981	24,981
Adjusted R-squared	0.047	0.051

Source: Higher Education Statistics Agency (HESA) (2011) Destinations of Leavers from Higher Education (2006/07). Demographics: Gender, age, ethnicity, region of work at 6 months. Prior attainment: Institution type, Oxbridge, UCAS tariff, subject, attainment.



Social Mobility &  
Child Poverty  
Commission

© Crown copyright [October 2013]

**ISBN: 978-1-78105-276-1**

Any enquiries regarding this publication should be sent to us at Social Mobility and Child Poverty Commission, Sanctuary Buildings, 20 Great Smith Street, London, SW1P 3BT. Email: [contact@smcpcommission.gov.uk](mailto:contact@smcpcommission.gov.uk)

This document is also available from our website at: [www.gov.uk/smcp](http://www.gov.uk/smcp)